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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,500	06/26/2001	Katsuhisa Itoh	040894-5682	1086

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EXAMINER
FLORES RUIZ, DELMA R

ART UNIT	PAPER NUMBER
2828	

DATE MAILED: 03/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/888,500	ITOH, KATSUHISA	
	Examiner	Art Unit	
	Delma R. Flores Ruiz	2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 December 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

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Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 3 is rejected under 35 U.S.C. 102(b) as being anticipated by Lichtenhan et al. (5,484,867).

Regarding claim 3, Lichtenhan discloses a laser device with an optical fiber containing a laser activating substance inside for emitting a laser beam from a distal end portion thereof, a part of said optical fiber being fixed in a dense state by an optical medium, wherein, the optical medium is obtained by curing an oligomer substance so as to be changed to a polymer substance, said oligomer substance being substantially same as said polymer substance, consisting of at least one member selected from a group consisting of a polymethyl silsesquioxane, a polymethyl-hydride silsesquioxane, a polyphenyl silsesquioxane, a polyphenylmehyl silsesquioxane, a phenyl silsesquioxane-dimethyl siloxane copolymer, a polyphenyl-vinyl silsesquioxane, polycyclohexyl

silsesquioxane, a polycyclopentyl silsesquioxane, a polyhydride silsesquioxane, a poly(2-chloro ethyl) silsesquioxane and a poly(2-bromo ethyl) silsesquioxane, or a mixture of said at least one member and polysiloxane, said oligomer substance being changed to a substance containing a polymer (Abstract, Column 1, Lines 30 – 35, Column 2, Lines 32 – 62, Column 3, Lines 30 – 39, Column 4, Lines 13 – 52, Column 5, Lines 7 – 15, Column 6, Lines 1 – 42, and 68, Column 7, Lines 1 – 6, and Column 8, Lines 34 – 65).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4, 6 – 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lichtenhan et al. (5,484,867) in view of Dawes et al.

Regarding claim 4, Lichtenhan discloses the claimed invention except for the optical medium contains amorphous silica produced by curing al least one member selected from a group consisting of a poly(2-chloro ethyl) silsesquioxane and a poly(2-bromo ethyl) silsesquioxane, and a mixture thereof. It would have been obvious at the time of applicant's invention, to combine Dawes of teaching a the optical medium contains an amorphous silica produced by curing al least one member selected from a group consisting of a poly(2-chloro ethyl) silsesquioxane and a poly(2-bromo ethyl) silsesquioxane, and a mixture thereof with laser device because it would have been obvious to one having ordinary skill in the art at the time the invention was made to the optical medium contains an amorphous silica produced by curing al least one member selected from a group consisting of a poly(2-chloro ethyl) silsesquioxane and a poly(2-bromo ethyl) silsesquioxane, and a mixture thereof, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Regarding claims 6 – 8 Lichtenhan discloses the claimed invention except optical fiber containing the optical fiber is fixed in a bundled state, and flat surface is formed on a side surface of the optical fiber such that the optical fiber is fixed in the state with the flat surface closely contacted with one another and a light signal amplifying device comprising a distal end portion of the optical fiber of the laser device

as an input end of a signal light, and the distal end portion as an output end of an amplified light. It would have been obvious at the time of applicant's invention, to combine Dawes of teaching a optical fiber containing the optical fiber is fixed in a bundled state, and flat surface is formed on a side surface of the optical fiber such that the optical fiber is fixed in the state with the flat surface closely contacted with one another and a light signal amplifying device comprising a distal end portion of the optical fiber of the laser device as an input end of a signal light, and the distal end portion as an output end of an amplified light with laser device because typical planar optical waveguide device includes a planar substrate, an array of waveguide cores supported on the planar substrate and a cladding layer. Optical radiation propagates in the cores. The lower index cladding layer confines the radiation to the higher index cores. In some cases, there is a second cladding layer between the cores and the planar substrate. The planar optical waveguide device is designed to transport optical radiation across a two dimensional planar substrate surface. The device usually performs a passive function on the optical radiation so as to modify the output signal from the input signal in a particular way. Some examples of planar optical waveguide devices are as follows. Optical splitters divide the optical signal power in one waveguide into two or more waveguides. Couplers add the optical signal from two or more waveguides into a smaller number of output waveguides. Spectral filters, polarizer, and isolators may be incorporated into the waveguide design. WDM (Wavelength Division Multiplexing)

structures separate an input optical signal into spectrally discrete output waveguides, usually by employing either phase array designs or gratings. A particular advantage of planar optical waveguide devices is the ability to include multiple functions on one platform. Active functionality can also be included in planar designs, where the input signal is altered by interaction with a second optical or electrical signal. Examples of active functions include switching (with electro-optic, thermo-optic or acousto-optic devices) and amplification.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lichtenhan et al. (5,484,867) in view of Dawes et al and further in view of Ueda et al (6,052,392).

Regarding claim 5, Lichtenhan in view of Dawes discloses the claimed invention except for optical fiber is wound in a spiral shape or coil-like shape. It would have been obvious at the time of applicant's invention, to combine Ueda et al of teaching a optical fiber is wound in a spiral shape or coil-like shape with laser device because the conglomerate form may be a disc shape, a cone shape, a regular polyhedron shape, a truncated polyhedron shape, an ellipse shape, a cocoon shape, an ellipsoid of revolution shape, a spiral shape, a sphere shape, a donut or ring shape, a torus shape, a fabric shape, or a shape linearly converted from one of those shapes, or a shape in combination of all or part of those shapes. The optical guide is made of an optical fiber

in the conglomerate form having at least an optical waveguide. The optical fiber in the conglomerate form is made immobile by covering all or a part of the optical fiber with a setting substance transmittable of the excitation light. The setting substance can be selected from a setting organic resin or glass, or a setting inorganic medium. The optical fiber in the conglomerate form may be made immobile mutually with an adjacent optical fiber by unitedly formed so that all or a part of the optical fiber is in contact with the adjacent optical fiber in a manner that each interface between a core and a clad of the optical fiber and the adjacent optical fiber is not impaired. The optical guide is either a double clad type optical fiber or an optical waveguide, formed with a clad and a second clad placed outside the clad.

Response to Arguments

Applicant's arguments with respect to claims 3 - 8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delma R. Flores Ruiz whose telephone number is

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3431.

Delma R. Flores Ruiz
Examiner
Art Unit 2828

Paul Ip
Supervisor Patent Examiner
Art Unit 2828

DRFR/PI
March 18, 2003